



UNITED STATES PATENT AND TRADEMARK OFFICE

MN
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/820,177	04/07/2004	Gary D. Anderson	POU920030211US1	7373
46369 7590 05/18/2007 HESLIN ROTHENBERG FARLEY & MESITI P.C. 5 COLUMBIA CIRCLE ALBANY, NY 12203			EXAMINER WILSON, YOLANDA L	
			ART UNIT 2113	PAPER NUMBER
			MAIL DATE 05/18/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/820,177

Applicant(s)

ANDERSON ET AL.

Examiner

Yolanda L. Wilson

Art Unit

2113

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-24 and 26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9-11, 13-20, 22-24 and 26 is/are rejected.
- 7) ☒ Claim(s) 8 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 8,21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 14-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 10 recites 'logic for automatically determining...'. As stated on page 4, paragraph 0015, this logic is software. Therefore, these claims merely recite software per se, which is not permissible under the Examination Guidelines for Computers - Related Inventions.
4. Claims 22-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 10 recites 'means for automatically determining...means for monitoring '. As stated on page 4, paragraph 0015, this is software. Therefore, these claims merely recite software per se, which is not permissible under the Examination Guidelines for Computers - Related Inventions.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2113

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-7,9-11,13-20,22-24,26 are rejected under 35 U.S.C. 102(e) as being anticipated by Loftis et al. (USPN 20040073833A1). As per claim 1, Loftis et al. discloses providing logic for automatically determining which controller of redundant controllers is active controller, wherein outputs controlled by the redundant controllers are electrically connected together and provided as input to at least one device in column 5, lines 41-51 and column 3, lines 43-54; and providing an independent hardware interlock device coupled to the outputs of the redundant controllers to ensure that output controlled by only the active controller is enabled as input to the at least one device in column 3, lines 50-54. The two processors in the process control system are the redundant controllers. The hardware interlock device is the bus switch.

7. As per claims 2,10,15,23, Loftis et al. discloses further comprising providing a unique identification for each controller of the redundant controllers, wherein the automatically determining comprises employing the unique identifications to automatically determine which controller of the redundant controllers is active controller in column 3, lines 43-54. It is inherent for the processors in the reference to have unique identifications.

8. As per claims 3,16, Loftis et al. discloses wherein the providing of unique identifications for the redundant controllers comprises providing hardwired identification

Art Unit: 2113

bits for each controller of the redundant controllers in column 3, lines 43-54. It is inherent for the processors in the reference to have hardwired identification bits.

9. As per claims 4,17, Loftis et al. discloses further comprising providing logic for monitoring the active controller for possible failure, and upon detection of failure, for automatically switching active control to another controller of the redundant controllers in column 4, lines 34-45.

10. As per claims 5,11,18,24, Loftis et al. discloses wherein the monitoring comprises employing a watch dog timer for the active controller of the redundant controllers, and detecting failure of the active controller when the watch dog timer of the active controller expires in column 5, lines 28-40.

11. As per claims 6,19, Loftis et al. discloses wherein providing the independent hardware interlock device includes providing a hardware state machine to enable/disable outputs controlled by each controller of the redundant controllers and ensure that output of only the active controller is enabled as input to the at least one device in column 3, lines 50-54. The output to the devices is disabled when a switch occurs.

12. As per claims 7,20, Loftis et al. discloses further comprising employing a watch dog timer for each controller of the redundant controllers, and providing status of watch dog timer signals of the redundant controllers to the hardware state machine as input, wherein the hardware state machine employs the status of the watch dog timer signals of the redundant controllers to determine which controller of the redundant controllers to

Art Unit: 2113

have output enabled for input to the at least one device in column 5, lines 28-40 and Figure 1.

13. As per claims 9,22, Loftis et al. discloses automatically determining which controller of the redundant controllers is active controller, wherein outputs controlled by the redundant controllers are electrically connected together and provided as input to at least one device in column 5, lines 41-51 and column 3, lines 43-54; monitoring the active controller for failure in column 4, lines 34-45; upon detection of failure, automatically switching active control to another controller of the redundant controllers, wherein the automatic switching of active control to the another controller of the redundant controllers is transparent to the at least one device in column 4, lines 34-45; and employing an independent, hardware interlock device coupled to the outputs of the redundant controllers to ensure that output controlled by only the controller with active control is enabled as input to the at least one device, the independent interlock device being separate from and external to the redundant controllers in column 3, lines 50-54.

14. As per claims 13,26, Loftis et al. discloses wherein the employing includes providing a watch dog timer for each controller of the redundant controllers and providing status of watch dog timer signals associated with each controller of the redundant controllers for use in facilitating the output interlock of the redundant controllers in column 5, lines 28-40 and Figure 1.

15. As per claim 14, Loftis et al. discloses logic for automatically determining which controller of redundant controllers is active controller, wherein outputs of the redundant controllers are electrically connected together and provided as input to at least one

device in column 5, lines 41-51 and column 3, lines 43-54; and an independent, hardware interlock device coupled to the outputs of the redundant controllers to ensure that output controlled by only the active controller is enabled as input to the at least one device the independent, hardware interlock device being separate from and external to the redundant controllers on page 3, lines 43-54.

Response to Arguments

16. Applicant's arguments with respect to claims 1-11,13-24,26 have been considered but are moot in view of the new ground(s) of rejection. A new reference has been found to reject the above-disclosed claims.

As for the 101 rejection of the above claims the logic and the means need to be stored in memory and executed by a processor or similar component.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

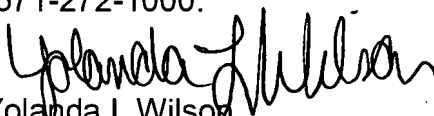
Art Unit: 2113

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yolanda L. Wilson whose telephone number is (571) 272-3653. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Yolanda L. Wilson
Examiner
Art Unit 2113